

**Table 1: Irrigation and Nutrient Management for Groundwater Protection**

Phasing or Prioritization- This should be based on location/priority BUT just because an area has bad water quality below the surface does not mean the grower on that location is at fault. Water travels or has been percolating there for hundreds of years. The fact that this valley was covered with hundreds of dairies only decades ago raises a flag for there being “historic” conditions of nitrates in the groundwater which science has yet to determine how long that will take to dilute or cycle through. Also, if growers, fertilizer storage facilities or greenhouses “upstream” have bad practices or major spillage accidents and water travels down to the sub-basin that is not located on their ranch how can you determine whose at fault? The grower upstream may be at fault yet at the priority location that grower is still pulling that water while having their own management plan for groundwater.

Numeric Limit- The A-R ratio is a red flag. What parameters are you basing Applied Nitrogen from Fertilizer (Afer) cannot exceed TBD lbs/ac/crop off of? Where is the scientific data based on evapotranspiration rate per ever single growing region and ranch, every single soil type, every single water type, every type of seed, every type of management practice to determine a single coefficient that can be used in every single type of operation as a blanket number for Nitrogen applied and nitrogen removed? From a scientific and plant pathology standpoint I find this research to be overly lengthy. This will take many years of research to determine a single coefficient for every single crop and growing region along with the multiple parameters I listed above. We need more resources to invest in research for developing Central Coast specific coefficients for your proposed N applied exceedance and N removed. Please consider the continuation of only requiring N applied until coefficients have been developed through scientific research. Without factual, evidence-based research, any application or data is not representative nor accurate. Does that make sense to use inaccurate, non-representative or even false data? Also, requiring N removed dives into the issue of intellectual property. By disclosing what we apply, how much water and what our yield is you are basically asking for our growing practices that contain proprietary information that has taken years, even generations to develop. Also, what are the considerations for if there is a total crop loss due to market conditions, a natural disaster (i.e. flooding), food safety issue (like the E.coli outbreaks we have seen), pest/disease pressure, and/or other unforeseen factors? Surely these situations are not the complete fault of the grower as we are beckoned by market conditions (consumer demand and supply), our shippers, our customers and mother nature. I highly recommend allowing for comment/pardon in such cases and such cases WILL occur. That is simply part of working in agriculture- accidents happen and we cannot predict the markets nor mother nature. A grower should not be penalized for an unavoidable crop loss due to the listed conditions above. We can do everything right and something can still go wrong.

Time Schedule to Achieve Numeric Limits- Again, this is difficult to determine without having the proper coefficients for every soil type, water type, and seed type let alone the evapotranspiration rate, the ranch, time of year and uncontrollable rain events during the growing season. It will be very interesting to see a “blanket” coefficient based on extensive research and scientific evidence as I stated. It is hard to even determine a year without having conducted simple research to start. Also, how would one figure out discharge of nitrogen into groundwater? If leaching doesn’t occur then nitrogen should stay within the root zone. I do not believe the technology is available yet for such a request.

Monitoring and Reporting- Again, monitoring and reporting for ALL ranches needs to be re-considered ESPECIALLY for organic growers. Does that really make sense to classify a 30-acre ranch of organic vegetables and conclude that they have the exact same discharge as a 1,000-acre conventional grower? I think science and practical growing knowledge says otherwise. First and foremost- organic growers can only

use NON-synthetic fertilizers (usually in the form of chicken meal, pellets or fish emulsion). These are 100% organic certified and from natural sources; organic fertilizers are generally insoluble in water. This insolubility makes them break down much slower and release nutrients more slowly allowing plants to more effectively uptake nutrients and in essence has little to no leaching with the proper management (Hadad and Anderson, Floriculture Research Report 19-04). The biological makeup of these fertilizers more closely match to the organic compounds found naturally in the soil. Thus, the chemical composition and bonds are stronger which makes them hold onto water better AND breaks down MUCH slower. Due to this slower breakdown, this means its LESS likely for nitrogen to seep into groundwater. Also, many organic growers use cover crops in the winter or in rotation which helps in taking up any extra nitrogen or nutrients in the soil, sequesters more carbon from the atmosphere and is then used as natural fertilizer and organic material for our next crop. I highly suggest the reconsideration of classification for organic growers into less reporting or an exemption; furthermore, I suggest incentivizing cover crops for conventional growers by giving them a nitrogen credit or pass on certain reporting. Organic farms are far more different than conventional farms and should be considered for reclassification. More information will be discussed on organic growers in the following tables.

In addition, what is the relevance of crop evapotranspiration for the water board? How do you suggest we measure irrigation discharge to surface water and groundwater? Is the technology even available for us to do this? How will we be compensated? Do I pay another employee to sit there and measure flow rate? Did you know minimum wage will have to reach \$15 per hour by 2022 and that our workers will only have a 40-hour work week by 2022 with any excess hours being considered overtime (which is 1.5X the minimum wage)? It has been typical that a work week in agriculture was 60 hours. How will farmers be compensated for this increase in work, money and monitoring? I suggest you work with shippers and customers such as Costco, Walmart and chain grocery stores on how we can be compensated for the increase in regulatory costs of 795% since 2006, which appears to only continue and increase (Cal Poly Regulatory Cost Changes Study, 2017). And these costs will only go up based on the new Ag Order and our state government. The challenges being presented to follow regulations is pushing our industry into inefficiency and polarization. At some point we will be pushed to a point where we are no longer a viable business, especially for small farmers. The cost and pressure in the industry cannot just keep being pushed onto the grower. We are truly being attacked by all angles. To state that this is truly a “collaboration and cooperative” effort for agriculture is a shame because we constantly have to defend ourselves.

Incentives- Pump and fertilize needs to have a credit along with it and the Nitrogen being pumped from our ground water should not be counted against us. Additional incentives should be cover crops not just on organic farms which is a BMP (best management practice) we already use but should be an incentive for conventional growers too. Having CCOF (California Certified Organic Farmers) certification or another type of organic certification should be proof of eligibility in exemption of extensive monitoring because of my points of N use/fertilizer in organics, which is highly different from conventional growers and we are audited annually to verify if we are following the rigorous federally regulated organic standards which includes soil, fertilizer and water management.

#### **Table 2: Irrigation and Nutrient Management for Surface Water Protection**

Phasing or Prioritization- In regards to location specific conditions such as water quality impairment, consideration for exemption/limited reporting should be taken for growers in impaired areas who ARE doing good management efforts to prevent N or treat their surface water or who do not release any water into surface waterways. Also does your definition of surface water include public waterways, rivers, canals

and creeks? Please define. In all honesty, I thought the tiered system was working just fine and made sense. This is not a communist country and all operations should not be treated exactly the same, penalized the exact same nor monitored the exact same. Again, organic growers due to the nature of our business have so much of a lower effect on water quality than conventional growers through our varying management practices (organic fertilizers, cover crops and non-synthetic pesticides) to the point that organically farmed land has an insignificant impact on water quality.

**Numeric Limits-** Scientific evidence and research needs to be conducted to determine what numeric limits will be. We need factual and science-based justification not just a made-up number. Again, no data is relevant if it is not based on facts which can be found through research. Also, if a grower does not let any water leave their ranch should they really have to monitor surface water? Part of the incentive should be if a grower uses and saves their own surface water through a reservoir or pond to treat and use again on their ranch for irrigation. There is research being done in the food safety sector to see if this will be a conflict of interest in food safety but with scarce and limited water supplies this is something innovative and needed for the future (Cahn, UCCEE 2018). Growers should not be penalized for catching/keeping their own water to either reuse (for germination or pre-irrigation/weed management) or treat.

**Time Schedule to Achieve Numeric Limits-** Again there needs to be scientific research and factual based evidence to determine this time frame. I would not feel comfortable stating a random year without ANY research done to see what is feasible for options and a time frame. What is your justification to find such a timeline and numeric limit? Surely, more research must be done.

**Monitoring and Reporting-** What do you mean by “discharge characteristics”? How often are we supposed to be analyzing this and who is going to pay for this extra labor to do this analysis and monitoring? Are growers expected to do this after every single storm? How do we predict when a storm comes? Will it be safe for a worker to be out on a ranch during a storm and risk their safety to monitor water characteristics? What if our management practice is not letting any water leave our ranch through scheduled, timely and efficient water practices? There is very little comparison to years of work and experience with proprietary information on how we regulate our irrigation, fertilizer and pesticide management and that should not be something we have to share with our competitors or the government.

**Incentives-** Include catch ponds/reservoirs, treatments ponds, bioreactors, cover crops, lined water ways, no run off water, organic inputs such as organic fertilizers and pesticides/ biopesticides. Incentives for the following BMPs should be less monitoring/less reporting or a later phase in of these ranches for reporting, or an adjusted price or monetary credit based on ranch acreage.

### **Table 3: Pesticide Management for Surface Water and Groundwater Protection**

**Phasing or Prioritization-** Consideration needs to be taken on this. Again, growers who farm near impacted waterways (what is your definition exactly?) may already be taking practices and measurements to prevent any water from leaving their ranch. They should not be penalized for their location near an impaired waterway when they themselves are NOT contributing. They should actually be incentivized for managing their water and preventing runoff into the already impaired canal or waterway. Ranches who do not prove such practices can be prioritized accordingly. This is also a good time to exempt or require less of organic growers. Organic growers who are certified through and accredited association like CCOF or ASCO are regulated under federal law and must document all input applications including input type application date, location and rate. Organic growers are already inspected every single year to maintain certification and to verify if they are following the rigorous organic federal standards, one of which is the use of 100% certified

organic fertilizers AND pesticides. We are banned from the use of all traditional synthetic pesticides which hugely limits our pest management practices as well as minimizes to an insignificant level the amount of toxic chemicals that organic production contributes to groundwater and surface water pollution. A common control we use is actual biological controls for pest management like ladybugs. Ladybugs actually eat aphids and other smaller insects. Management practices, such as this, is one example showing why organic growers should have less reporting because our pest control is 100% organic and the pesticides are of completely organic from natural compounds; thus, they are much less harmful to human health, water and our soils because they are not synthetic (laboratory made). Certified organic pesticides are “derived from natural substances such as plants or bacteria, go through a strict regulatory approval process to ensure they are not harmful to the environment and human health, and are only allowed to be used when other pest control methods aren’t successful” (Non GMO Report, 2017). There are only 25 federally registered organic pesticides, where as there are 900 federally registered conventional pesticides.

Numeric Limits- Again, we need scientific data, evidence and research to determine numeric limits. It makes NO sense to throw out numbers and timelines that are not feasible NOR do they have actual factual basis to be determined from. Data such as this is irrelevant.

Time Schedule to Achieve Numeric Limits- See comments from Tables 1 and 2 above.

Monitoring and Reporting- What are application characteristics? If you are talking about what we apply we have to report to the county our pesticides every single month and keep track of every single application for the safety of our workers. For individual discharge to surface water what if no water ever leaves the ranch? Again, individual farmers should not have to pay for this extra labor to sit and monitor surface water for every single irrigation event on every single ranch. Refer to wage increases in Table 1 in the monitoring and reporting section. This is not feasible or cost effective to test for pesticides and toxicity at every irrigation event. We have no “quick test” for pesticide testing in water and what is available is very expensive. These tests are extremely costly and time consuming. If water never leaves a ranch then this should not be a necessary requirement.

Incentives- I suggest catch ponds/reservoirs, treatments ponds, bioreactors, cover crops, lined water ways, no run off water, and organic inputs such as organic fertilizers and pesticides/ biopesticides. Incentives for the following BMPs should be less monitoring/less reporting or a later phase in of these ranches for reporting; or use an adjusted price or monetary credit based on ranch acreage.

#### **Table 4: Sediment and Erosion Management for Surface Water Protection**

Phasing or Prioritization- This really should be location specific, many farmers have buffer areas or erosion control already in place. Not everyone should have to take the extra time or resources to monitor sediment erosion if they already have a management plan in place. Also, what is the point of this control? Is this for waterways? Is it for surface water leaving the ranch, just storm events, or for our own catch ponds? This is all very vague. I have said time and time again through these comments that farmers are being stretched thin with our resources, labor, time and productivity by having to follow an onset of new regulations year after year to the point that we are losing to competition of other countries. The more specific we can be in who needs to be prioritized and who are the actual farmers that need the most help in preventing erosion (or water quality management) should be phased in first. If this is truly a dire issue we need to go right to the source. We do not even need to focus on this right now- nitrates and pesticides are the main concern according to the Non-Point source pollution definition. If you are going to do one thing do that one thing

well. Do not try to solve a multitude or smaller minute issues when we have other more pressing ones at hand. This is an inefficient use of time and resources.

Numeric Limits- How is cold or warm turbidity determined? What if the water way is only used during storm events? How can you determine a storm design when we cannot even accurately predict weather a few days in advance? Again, who is responsible for the safety of our workers if we make them work in storm conditions to determine turbidity? I don't think risking our workers health and safety is worth this requirement. Also, the temperature of water will change throughout the year just as ETo (evapotranspiration) changes, thus I don't think turbidity can just be warm or cold all year round. And the word "habitat" is scary for food safety. We do not want any type of habitat that could harbor pests of any kind too close to our leafy greens. If there is a ranch producing leafy greens it is assumed there are no cold or warm "habitats" nearby, for that does not follow LGMA (Leaf Greens Marketing Act) guidelines.

Time Schedule to Achieve Numeric Limits- I've said it before, I'll say it again- SCIENTIFIC EVIDENCE, DATA and RESEARCH must be done to determine this. Irrelevant data and numbers do NOTHING to solve the problem. In school if you had a wrong answer to a math problem did you solve the problem? We need factual based evidence and science to make the most accurate determinants.

Monitoring and Reporting- How will these subset watersheds be determined? Again, if a ranch or grower has a management plan in place to control erosion and prevent discharge, I think they should be exempt from such monitoring and or reporting

Incentives- Erosion plan, cover crop, buffer areas, lined water ways, sediment management plan should all be considered as incentives to being placed in a different phasing or prioritization and or less reporting/monitoring. Sustainability certificates as well as organic certification should be incentive or an exemption based on their own requirements for erosion control which SIP (Sustainability in Practice) AND CCOF requires and growers are audited annually.

#### **Table 5: Riparian Habitat Management for Water Quality Protection**

Phasing or Prioritization- Some ranches, if not most, are not near a riparian habitat, especially any farm compliant with LGMA guidelines. You will never see leafy greens grown next to any type of riparian habitat: food safety rules and regulations do not allow this. Also, it is important to note that many ranches have management plans; or for example, some are involved with the Salinas River Channel Maintenance program and thus follow strict guidelines in protecting habitat. What are your definitions for riparian habitat? What if the "habitat" is owned by a landowner? I believe that management would be under *their* jurisdiction. You will need to work closely with landowners (unless its public/county property). This is difficult to have oversight/regulation on if it is private property, which much if not most farmland on the Central Coast is.

Numeric Limits- How are we supposed to determine a percent of native grasses, shrubs and trees? How big of an area do we stretch to for an adjacent ranch? What if the area has a mix of all three? If a farmer doesn't have run off, has BMP for their pest management program which prevents drift of any sprays, they should have essentially no effect on any surrounding habitat. If they have a plan and/ OR are in a restoration program they should not be mandated to have buffer zones. We already have plenty of buffer zones for food safety, this additional buffer would cause a loss of even more arable land and land taxes and rent that would go to waste. You will have to monetarily compensate farmers for these buffer areas to offset the cost for land rent on land that we can't even farm because you force it to become a buffer. Also,

your prohibition clause is only valid for public/county riparian areas. Any other “riparian area” is managed by a landowner. It’s their private property.

Time Schedule to Achieve Numeric Limits- AGAIN, you need science, research, facts, and evidence. You cannot establish numeric limits without such relevant data.

Monitoring and Reporting- Native vegetation will still be affected if we have unclean water so this again should not be a phase in table for ag order 4.0 just like the erosion table. We need to get right to the source. Even if you have riparian buffer areas, if pesticide run off still flows through you are not solving anything. We need realistic goals set, and we need to error on the side of caution for over regulation and stretching ourselves and our resources too thin.

Incentives- Use management plans, BMPs, restoration programs like the Salinas River Channel Maintenance program, work with the RCD (Resource Conservation District) organic certification (we have many rules regarding buffer zones and being sensitive to native vegetation/habitat as an example). I encourage the board to look into the federal organic standards. If such incentives are done there should be less monitoring or less reporting required.

The comments made in this document are from a fourth-generation farmer’s daughter, a young female millennial, who is part of the next generation of farming with the help and input of her father who has over 40 years of farming experience. Our Salinas Valley family farm has been around since the early 1900s; we began as a dairy farm and sold all of our cows in 1973 after the initiation of the more restrictive Grade A and Grade B milk regulations. Since then, we have become a diversified vegetable grower of both organic and conventional produce, our combined total acreage being less than 700, of which more than 70% of the ground is not owned by us; instead we have to pay rent for it.

If you have further comments, questions, or discussion feel free to contact me. I hope these comments are taken into consideration as the board develops their final recommendation. I encourage the consideration or reference of the alternatives to the proposed staff matrix, such as that which will be brought forward by GSA (Grower Shipper Association), MCFB (Monterey County Farm Bureau), and CCOF (California Certified Organic Farmers).

Thank you for this consideration.

Jynel Gularte

Controller and Compliance

Rincon Farms, Inc.